delete "and so on";

Line 22, insert --,-- after "maximum" and change "thus" to --thereby--;

PAGE 79:

Line 12, insert --large-- after "a" and delete "large".

IN THE CLAIMS:

Cancel claims 15-21 without prejudice or admission.

Kindly amend claims 1-14 by rewriting them in amended form as follows:

1. (Amended) An ultrasonic motor comprising: [having] a piezoelectric vibrating member having [a driving polarized portion and] a detecting polarized portion for detecting a drive signal having a drive frequency of the detecting polarized portion and a driving polarized portion for receiving the drive signal to oscillate the [wherein said] piezoelectric vibrating member in self-excited oscillation to produce a drive force, the [is self-oscillated based on an output signal of said detecting polarized portion to obtain drive force, said ultrasonic motor characterized in that: said] detecting polarized portion being disposed [is provided] at a [position including] a portion of the piezoelectric

vibrating member which undergoes [where deformation assumes a] maximum deformation in at least one vibration mode of oscillation [in said] of the piezoelectric vibrating member; and an amplifying circuit for amplifying the drive signal detected by the detecting polarized portion and inputting the amplified signal to the driving polarized portion to oscillate the piezoelectric vibrating member.

2. (Amended) An ultrasonic motor [having] comprising: a piezoelectric vibrating member having [a driving polarized portion and] a detecting polarized portion for detecting a drive signal having a drive frequency of the detecting polarized portion and a driving polarized portion for receiving the drive signal to produce a flexion vibration wave for oscillating the [to cause a flexion vibration wave wherein said] piezoelectric vibrating member in self-excited oscillation to produce a drive force, the [is self-oscillated based on an output signal of said detecting polarized portion to obtain drive force, said ultrasonic motor characterized in that: said] detecting polarized portion being disposed [is provided] on [said] the piezoelectric vibrating member at a position symmetrical about a loop of [a] the flexion vibration wave; and an amplifying circuit for amplifying the drive signal detected by the detecting polarized portion and inputting the amplified signal to the driving polarized portion to oscillate the piezoelectric vibrating member.

3. (Amended) An ultrasonic motor [having] comprising: a piezoelectric vibrating member having a first driving polarized portion [to cause] for generating a first flexion vibration wave, [and] a second driving polarized portion [to cause] for generating a second flexion vibration wave [deviated in] having a phase [with respect to] different from that of the first flexion vibration wave[, said ultrasonic motor characterized in that:], and a detecting polarized portion [is provided] disposed at a position symmetrical about a loop of one of the first flexion vibration wave and the second flexion vibration wave [to detect] for detecting a drive signal having a drive frequency of the detecting polarized portion [based on] in accordance with oscillation [in said driving polarized portion causing the one flexion vibration wave.] of the first driving polarized portion; and an amplifying circuit for amplifying the drive signal detected by the detecting polarized portion and inputting the amplified signal to one of the first and second driving polarized portions.

4. (Amended) An ultrasonic motor according to claim [3,]3; further [including an amplifying circuit for amplifying the drive signal detected by said detecting polarized portion and] comprising a phase shift circuit for shifting a phase of the drive signal amplified by [said] the amplifying circuit[,

wherein the drive signal amplified by said amplifying circuit is fed back to said driving polarized portion that the drive signal has been detected by said driving polarized portion while] and inputting the drive signal shifted in phase [by said phase shift circuit is inputted] to the other of the first and second driving polarized [portion.] portions.

5. (Amended) An ultrasonic motor [having] comprising:

a piezoelectric vibrating member;

a first driving electrode disposed on the piezoelectric vibrating member [polarized portion] for generating [causing] a first flexion vibrating wave; [and]

a second driving electrode disposed on the piezoelectric vibrating member [polarized portion] for [causing] generating a second flexion vibration wave [deviated in] having a phase [with respect to] different from that of the first flexion vibration wave, the first and second flexion vibration waves generating oscillation for oscillating the [to self-oscillate said] piezoelectric vibrating member [thereby obtaining] in self-excited oscillation to produce a drive force[, said ultrasonic motor comprising:];

a first detecting electrode disposed on the piezoelectric vibrating member [polarized portion provided] at a position symmetrical about a loop of the first flexion

vibrating wave [to detect] for detecting a drive signal having a drive frequency of the first detecting electrode in accordance with [based on] oscillation [on said] of the first driving [polarized portion] electrode;

a second detecting electrode disposed on the piezoelectric vibrating member [polarized portion provided] at a position symmetrical about a loop of the second flexion vibrating wave [to detect] for detecting a drive signal having a drive frequency of the second detecting electrode [based on] in accordance with oscillation [on said] of the second driving [polarized portion] electrode;

a first switching circuit for switching to one of [said] the first detecting [polarized portion] electrode and [said] the second [polarized portion] detecting electrode;

an amplifying circuit for amplifying the drive signal detected by [one of said] the first or the second detecting [polarized portions] electrode to which [said] the first switching circuit switches;

a phase shift circuit for shifting a phase of the drive signal amplified by [said] the amplifying circuit;

a second switching circuit for feeding the drive signal amplified by [said] the amplifying circuit back to one of the first and second driving electrodes [said driving polarized portion that the drive signal has been detected by said one detecting polarized portion]; and

a third switching circuit for inputting the drive signal [sifted] shifted in phase by [said] the phase shift circuit to the other of the first and second electrodes; [driving polarized portion; whereby]

wherein the [elliptic vibration is caused on said] piezoelectric vibrating member undergoes elliptic self-oscillation [due to the first flexion vibration wave and the second flexion vibration wave,] and the direction of the elliptic oscillation is reversed [in rotational direction] by switching [said] of the first switching circuit, [said] the second switching circuit and [said] the third switching circuit.

6. (Amended) An ultrasonic motor comprising: [having] a piezoelectric vibrating member having a first driving polarized portion for generating [causing] a stretching vibration wave, [and] a second driving polarized portion for [causing] generating a flexion vibrating wave[, to self-oscillate said piezoelectric vibrating member thereby obtaining drive force, said ultrasonic motor characterized in that:], and a detecting polarized portion disposed at a position [is provided] symmetrical about one of a node of the stretching vibration wave and a loop [f] of the flexion vibration wave [on said piezoelectric vibrating member to detect] for detecting a drive signal [based on] having a drive

frequency of the detecting polarized portion in accordance with oscillation [in said] of one of the first driving polarized portion and the second driving polarized [portion.] portion, respectively; and amplifying means for amplifying the drive signal detected by the detecting polarized portion and inputting the amplified signal to the first and second driving polarized portions for oscillating the piezoelectric vibrating member in self-excited oscillation to produce a drive force.

7. (Amended) An ultrasonic motor according to claim 6[,]; wherein [said] the detecting polarized portion is [provided] disposed symmetrical about [a] the node of the stretching [vibrating] vibration wave [in place of the loop of the flexion vibration wave, to detect] for detecting the drive signal [based on] in accordance with oscillation [in said] of the first driving polarized portion.

8. (Amended) An ultrasonic motor according to [claim 6 or] claim 7[,]; wherein [further including an] the amplifying [circuit to amplify the drive signal detected by the detecting polarized portion, so that the drive signal amplified by the amplifying circuit is fed] means includes means for feeding the amplified signal back to one [driving polarized portion that the drive signal is detected by the detecting polarized portion while the amplified drive signal

is inputted to the other] of the first and second driving polarized [portion] portions.

9. (Amended) An ultrasonic motor according to claim 8[, wherein]; further comprising a phase shift circuit disposed between the amplifying means and one of the first and second driving polarized portions for shifting a phase of the drive signal amplified by [said] the amplifying means [circuit is provided between said amplifying circuit and the other driving polarized portion].

A1 Cont.

10. (Amended) An ultrasonic motor according to claim 3[,]; wherein [said] the piezoelectric vibrating member is generally cylindrical-shaped [is in a form of a cylinder and] and has an end face [of said cylinder] disposed at [an] a maximum displacement point [is moved] for undergoing movement by the oscillation generated by the first flexion vibrating wave and the second flexion vibrating wave.

SUB B3

11. (Amended) An ultrasonic motor [provided with] comprising: a piezoelectric vibrating member; [having] a driving [polarized portion to be oscillated in] electrode disposed on the piezoelectric vibrating member for undergoing vertical vibration to [cause said] vibrate the piezoelectric vibrating member in self-excited vibration to [self-vibrate thereby obtaining] produce a drive [force, said ultrasonic

motor characterized in that] force; a detecting [polarized portion is provided in one part of said driving polarized portion to detect] electrode for detecting a drive signal having a drive frequency of the detecting electrode in accordance with vibration of the [based on oscillation in said] driving [polarized portion.] electrode; and an amplifying circuit for amplifying the drive signal detected by the detecting electrode and inputting the amplified drive signal to the driving electrode to vibrate the piezoelectric vibrating member.

6 12. (Amended) An ultrasonic motor comprising: [provided with] a piezoelectric vibrating member; [having] a driving [polarized portion to be oscillated in torsional vibration to cause said] electrode disposed on the piezoelectric vibrating member for undergoing torsional vibration to vibrate the piezoelectric vibrating member in self-excited vibration to produce a drive force; [self-vibrate thereby obtaining force, said ultrasonic motor characterized in that] a detecting [polarized portion is provided in a part of said driving polarized portion to detect] electrode for detecting a drive signal [based on] having a drive frequency of the detecting electrode in accordance with vibration of the [oscillation in said] driving [polarized portion.] electrode; and an amplifying circuit for amplifying

the drive signal detected by the detecting electrode and inputting the amplified drive signal to the driving electrode to vibrate the piezoelectric vibrating member.

13. (Amended) An ultrasonic motor according to claim 11[,]; wherein the [said] detecting electrode [polarized portion] is spaced apart from the driving electrode [separately provided] in a vertical vibrating direction thereof [of said driving polarized portion in place of the one part of said driving polarized portion].

14. (Amended) An ultrasonic motor according to claim 12[,]; wherein the [said] detecting electrode is spaced apart from the driving electrode [polarized portion is separately provided] in a thickness direction thereof [of said driving polarized portion in place of the one part of said driving polarized portion].

Kindly add the following new claims 22-51:

15~~22~~. An ultrasonic motor according to claim 1; wherein the detecting polarized portion overlies and is integral with the driving polarized portion.

16~~23~~. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 1; a moving member connected to the piezoelectric vibrating member of the

ultrasonic motor for undergoing movement in accordance with oscillation of the piezoelectric vibrating member; an output mechanism; and a transmission mechanism for transmitting movement of the moving member to the output mechanism.

17
24. An ultrasonic motor according to claim 2; wherein the detecting polarized portion overlies and is integral with the driving polarized portion.

18
25. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 2; a moving member connected to the piezoelectric vibrating member of the ultrasonic motor for undergoing movement in accordance with oscillation of the piezoelectric vibrating member; an output mechanism; and a transmission mechanism for transmitting movement of the moving member to the output mechanism.

#7 cont.

19
26. An ultrasonic motor according to claim 3; wherein the detecting polarized portion overlies and is integral with the driving polarized portion.

20
27. An ultrasonic motor according to claim 3; further comprising a phase shift circuit for shifting a phase of the drive signal amplified by the amplifying circuit; and a buffer circuit having a high input impedance and a low output impedance disposed between the amplifying circuit and the phase shift circuit.

28. An ultrasonic motor according to claim 27; further comprising a second amplifying circuit disposed between the phase shift circuit and the second driving polarized portion for amplifying the drive signal shifted in phase by the phase shift circuit.

29. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 3; a moving member connected to the piezoelectric vibrating member of the ultrasonic motor for undergoing movement in accordance with oscillation of the piezoelectric vibrating member; an output mechanism; and a transmission mechanism for transmitting movement of the moving member to the output mechanism.

30. An ultrasonic motor according to claim 4; wherein the detecting polarized portion overlies and is integral with the driving polarized portion.

31. An ultrasonic motor according to claim 4; further comprising a buffer circuit having a high input impedance and a low output impedance disposed between the amplifying circuit and the phase shift circuit.

32. An ultrasonic motor according to claim 31; further comprising a second amplifying circuit disposed between the phase shift circuit and the second driving

polarized portion for amplifying the drive signal shifted in phase by the phase shift circuit.

26
33. An ultrasonic motor according to claim 5; wherein the detecting electrode overlies and is integral with the driving electrode.

27
34. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 5; a moving member connected to the piezoelectric vibrating member of the ultrasonic motor for undergoing movement in accordance with oscillation of the piezoelectric vibrating member; an output mechanism; and a transmission mechanism for transmitting movement of the moving member to the output mechanism.

28
35. An ultrasonic motor according to claim 6; wherein the amplifying means includes means for feeding the amplified signal back to one of the first and second electrodes.

29
36. An ultrasonic motor according to claim 6; wherein the detecting electrode overlies and is integral with the driving electrode.

30
37. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 6; a moving member connected to the piezoelectric vibrating member of the

ultrasonic motor for undergoing movement in accordance with oscillation of the piezoelectric vibrating member; an output mechanism; and a transmission mechanism for transmitting movement of the moving member to the output mechanism.

31. An ultrasonic motor according to claim 6; wherein the detecting polarized portion is disposed symmetrical about the loop of the flexion vibration wave for detecting the drive signal in accordance with the second driving polarized portion.

32. An ultrasonic motor according to claim 7; wherein the detecting electrode overlies and is integral with the driving electrode.

33. An ultrasonic motor according to claim 8; wherein the detecting electrode overlies and is integral with the driving electrode.

34. An ultrasonic motor according to claim 9; wherein the detecting electrode overlies and is integral with the driving electrode.

35. An ultrasonic motor according to claim 9; further comprising a buffer circuit having a high input impedance and a low output impedance disposed between the amplifying circuit and the phase shift circuit.

36 ~~43~~. An ultrasonic motor according to claim ~~42~~ 35; further comprising a second amplifying circuit disposed between the phase shift circuit and the second driving polarized portion for amplifying the drive signal shifted in phase by the phase shift circuit.

37 ~~44~~. An ultrasonic motor according to claim 11; wherein the detecting electrode is disposed on a portion of the driving electrode.

38 ~~45~~. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 11; a moving member connected to the piezoelectric vibrating member of the ultrasonic motor for undergoing movement in accordance with oscillation of the piezoelectric vibrating member; an output mechanism; and a transmission mechanism for transmitting movement of the moving member to the output mechanism.

A7 (cont.)

39 ~~46~~. An ultrasonic motor according to claim 12; wherein the detecting electrode is disposed on a portion of the driving electrode.

40 ~~47~~. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 12; a moving member connected to the piezoelectric vibrating member of the ultrasonic motor for undergoing movement in accordance with oscillation of the piezoelectric vibrating member; an output

mechanism; and a transmission mechanism for transmitting movement of the moving member to the output mechanism.

48. An ultrasonic motor comprising: a piezoelectric vibrating member; and a driving circuit for applying an exciting signal to the piezoelectric vibrating member to oscillate the piezoelectric vibrating member in self-excited oscillation, the driving circuit having a detecting electrode for detecting the exciting signal and disposed at a portion of the piezoelectric vibrating member for undergoing maximum deformation in at least one vibration mode of oscillation of the piezoelectric vibrating member, a driving electrode for receiving the exciting signal, and an amplifying circuit for amplifying the exciting signal detected by the detecting polarized portion and inputting the amplified signal to the driving polarized portion.

49. An ultrasonic motor according to claim 48; wherein the exciting signal has a drive frequency of the detecting electrode.

50. An ultrasonic motor according to claim 48; further comprising a phase shift circuit for shifting a phase of the exciting signal amplified by the amplifying circuit.

51. An electronic apparatus comprising: an ultrasonic motor as claimed in claim 48; a moving member